

06-19-01

A

Capasso 68-107-2-21-3-37

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

## PATENT APPLICATION

**INVENTOR(S):** Federico Capasso  
Alfred Yi Cho  
Raffaele Colombelli  
Claire F. Gmachl  
Hock Min Ng  
Deborah Lee Sivco

**CASE:** 68-107-2-21-3-37

**TITLE:** Engineering the Gain/Loss Profile of Intersubband Optical Devices  
Having Heterogeneous Cascades

ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, DC 20231

**SIR:**

Enclosed are the following papers relating to the above-named application for patent:

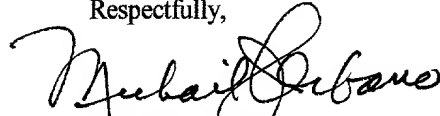
- Specification
- 6 Informal sheet(s) of drawing

		CLAIMS AS FILED		
	NO. FILED	NO. EXTRA	RATE	CALCULATIONS
Total Claims	11 -20 =	0	x \$18	0
Independent Claims	2 - 3 =	0	x \$80	0
Multiple Dependent Claims, if applicable	0	0	x \$270	0
Basic Fee				\$710
			TOTAL FEE	\$710

Please file the application and charge **Lucent Technologies Inc. Deposit Account No. 12-2325** the amount of \$710, to cover the filing fee. Duplicate copies of this letter are enclosed. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 12-2325** as required to correct the error.

Please address all correspondence to me at 1445 Princeton Drive, Bethlehem, PA 18017-9166 and direct all telephone calls to me at Area Code 610-691-7710.

Respectfully,



Michael J. Urbano

Reg. No. 24,522

Attorney for Applicant(s)

Date: 06/18/01

Express Mail No. EF 022933446US

Date of Deposit 06/18/01

I hereby certify that this application is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37CFR1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, DC.

Michael J. Urbano: 